PU M Sc Computer Science

140 PU_2015_370
The number of independent paths in a program can be found by computing the _____.

○ Binary search routine

○ Input sequence

○ Cyclomatic Complexity

○ Equivalence partitions

104 PU_2015_370
In the process of fetching a web page from a server the HTTP request/response takes _____ round trip time.

○ 2

○ 3

○ 1

○ 4

172 PU_2015_370
The Windows OS equivalent of the POSIX open command is:-

○ CloseHandle

○ ReadFile

○ CreateFile

○ WriteFile

145 PU_2015_370
Which of the following algorithm design technique is used in the quick sort algorithm?

○ Backtracking

○ Dynamic programming

○ Greedy method

○ Divide and conquer

112 PU_2015_370
It is best to use _____ for a well understood data processing application.

○ The waterfall model

○ prototyping model

○ the evolutionary model

the spiral model

190 PU_2015_370
User mode is also called:-

○   Monitor mode

○   System mode

○   Supervisor mode

○   Privileged mode

166 PU_2015_370
Which OS strategy popularized the idea personal productivity tools, bitmap graphics, and virtual terminals?

○   Personal computers and workstations systems

○   Timesharing system

○   Batch processing system

○   Real-timer systems

196 PU_2015_370
List out which is not a I/O Controller:-

○   I/O Controller

○   Program controlled I/O

○   Data Controller I/O

○   Interrupt controller I/O

213 PU_2015_370
A computer with interrupts usually includes instructions to enable/disable interrupts:-

○   to synchronize the CPU operation with the power cycle

○   to prevent overhead due to slow devices

○   to enable the OS to ignore rogue devices

○   to prevent race conditions in the kernel

116 PU_2015_370
If 5 files are transferred from server A to client B in the same session. The number of TCP connection between A and B is:-

○   3

○   4

○ 6

○ 5

123 PU_2015_370
Which of the following digits are known as the terminal number of the Network User Address (NUA)?

○ 5-7

○ 1-4

○ 8-12

○ 13-14

143 PU_2015_370
The Worst case occur in linear search algorithm when:-

○ Item is the last element in the array

○ Item is somewhere in the middle of the array

○ Item is the last element in the array or is not there at all

○ Item is not in the array at all

192 PU_2015_370
The fetch-execute algorithm:-

○ describes the operation of a von Neumann computer

○ describes the opration of the CPU

○ describes the opration of the ALU

○ describes the operation of the control unit

147 PU_2015_370
In the maintenance phase the product must be tested against previous test cases. This is known as _____ testing.

○ Beta.

○ Regression

○ Integration

○ Module

106 PU_2015_370
In which model the requirements are implemented by category?

○ Evolutionary Development Model

Prototyping

Waterfall Model

Iterative Enhancement Model

16 of 100
105 PU_2015_370
Which of the following is not correct?

Web cache doesn't has its own disk space

Web cache contains copies of recently requested objects

Web cache might reduce the response time

Web cache can act both like server and client

17 of 100
109 PU_2015_370
The desired level of coupling is:-

Data coupling

Common coupling

No coupling

Control coupling

18 of 100
121 PU_2015_370
No. of bits per symbol used in Baudot code is:-

3

4

5

2

19 of 100
154 PU_2015_370
Which process is used to generate an assembly statement from a model statement?

Symbol Translation

Lexical Translation

Lexical substitution

Symbol generation

20 of 100
132 PU_2015_370
An algorithm is made up of two independent time complexities f (n) and g (n). Then the complexities of the algorithm is in the order of:-

○ f(n) x g(n)

○ f(n) + g(n)

○ Min (f(n),g(n))

○ Max (f(n),g(n))

191 PU_2015_370
Which of the following is true?

○ The linkage editor resolves external references between the object modules during execution time

○ The linkage editor links object modules and resolves external references between them before loading

○ The linkage editor links object modules during compiling or assembling

○ The linkage editor is used to edit programs which have to be later linked together

115 PU_2015_370
The maximum data rate that a medium of 10 KHz and signal to noise ratio of 30dB is roughly:-

○ 30 Kbps

○ 3 Kbps

○ 10 Kbps

○ 100 Kbps

211 PU_2015_370
Natural language processing is divided into the two subfields of:-

○ time and motion

○ understanding and generation

○ symbolic and numeric

○ algorithmic and heuristic

160 PU_2015_370
A grammar for a programming language is a formal description of:-

○ Structure

○ Syntax

○ Semantics

○ Library

100 PU_2015_370

If every requirement stated in the Software Requirement Specification (SRS) hasonly one interpretation, then the SRS is said to be:-

○ correct

○ consistent

○ verifiable

○ unambiguous

110 PU_2015_370
How many cross points are needed in a single-stage switch with 40 inputs and 50 outputs?

○ 2000

○ 50

○ 40

○ 90

127 PU_2015_370
A mathematical-model with a collection of operations defined on that model is called:-

○ Data Structure

○ Primitive Data Type

○ Algorithm

○ Abstract Data Type

177 PU_2015_370
Virtual Memory is _____.

○ Extremely Large Main Memory

○ An illusion of Extremely Large Secondary Memory

○ Extremely Large Secondary Memory

○ An illusion of Extremely Large Main Memory

119 PU_2015_370
Which of the following helps code reuse in the object oriented paradigm?

○ aggregation

○ inheritance

○ class

○ object

187 PU_2015_370
_____ indicating the names of all functions and global variables and the virtual addresses they correspond to.

○ File Table

○ Page Table

○ Symbol Table

○ Based table

158 PU_2015_370
Macro definitions are typically located at the start of a program. It consists of all but:-

○ A macro prototype statement

○ Macro preprocessor

○ One or more model statements

○ Expansion of Macro

103 PU_2015_370
One factor in the accuracy of a reconstructed PCM signal is the:-

○ Carrier frequency

○ Baud rate

○ Number of bits used for quantization

○ Signal bandwidth

148 PU_2015_370
What is the minimum number of stacks of size n required to implement a queue of size n?

○ Four

○ Three

○ One

○ Two

111 PU_2015_370
In the Spiral Model the 'Risk Analysis' is performed:-

○ in every loop

○ in the first loop

○ before using spiral model

○ in the first and second loop

151 PU_2015_370
Which of these is not true about Symbol Table?

○ Table has entry for symbol name address value

○ Perform the processing of the assembler directives

○ All the labels of the instructions are symbols

○ created during pass 1

201 PU_2015_370
Which of the following is NOT a component on the device controller interface?

○ Data register or buffer

○ Command register

○ Status register

○ Framis register

146 PU_2015_370
The following sequence of operation is performed on stack:-

push(1),push(2),pop,push(1),push(2),pop,pop,pop,push(2),pop. The sequence of popped out values are:-

○ 2,2,1,1,2

○ 2,1,2,2,2

○ 2,1,2,2,1

○ 2,2,1,2,2

126 PU_2015_370
The searching technique that takes O (1) time to find a data is:-

○ Linear Search

○ Hashing

○ Binary Search

○ Tree Search

216 PU_2015_370
The device controller interface is manipulated by which of the following components?

○ Device driver

○ Process manager

○ Memory manager

○ File manager

122 PU_2015_370
You are working with a network that is 170.12.0.0 and would like to support 612 hosts per subnet. What subnet mask should you use?

○ 255.255.252.0

○ 255.255.248.0

○ 255.255.240.0

○ 255.255.255.0

174 PU_2015_370
The mode bit can be implemented in:-

○ Any system software

○ Hardware

○ Kernel space software

○ Middleware

129 PU_2015_370
Conceptually, how many entries are there in a page table?

○ |(virtual address space)/(page size)|

○ |virtual address space|

○ (# of page frames allocated to the process) * (page size)

○ (# of page frames allocated to the process) / (page size)

136 PU_2015_370
The depth of a complete binary tree is given by:-

○ Dn = n log2n

○ Dn = n log2n+1

○ Dn = log2n+1

○ Dn = log2n

203 PU_2015_370
_____ is the primary consideration in designing knowledge-based AI systems.

○ Analogy

○ Acquisition

Efficiency

Efficacy

113 PU_2015_370
Output comparators are used in:-

static testing of single module

dynamic testing of single and multiple module

dynamic testing of single module

static testing of single and multiple module

186 PU_2015_370
An I/O bound program will typically have:-

A few very short CPU bursts

Many very short CPU bursts

A few very short I/O bursts

Many very short I/O bursts

142 PU_2015_370
A variable P is called pointer if:-

P contain the DATA and the address of DATA

P points to the address of first element in DATA

P can store only memory addresses

P contains the address of an element in DATA

137 PU_2015_370
In a binary tree, certain null entries are replaced by special pointers which point to nodes higher in the tree for efficiency. These special pointers are called:-

path

Leaf

branch

thread

139 PU_2015_370
Test cases consist of _____.

requirements specifications

inputs and predicted outputs

testing plans

use case diagrams

50 of 100
135 PU_2015_370
Which of the following is not an attribute of software engineering?

Efficiency

Dependability

Scalability

Usability

51 of 100
163 PU_2015_370
In a two pass assembler the object code generation is done during the:-

Zeroth pass

Not done by assembler

First pass

Second pass

52 of 100
120 PU_2015_370
What is the range of Ephemeral ports?

1 to 1024

1024 to 65535

1 to 80

80 to 8080

53 of 100
118 PU_2015_370
If you have a class C address, with a three-bit subnet mask, which of the following would be a subnetwork identifier?

203.16.34.33

203.16.34.135

203.16.34.135

203.16.34.224

54 of 100
156 PU_2015_370
Storage mapping is done by:-

○ Loader

○ Compiler

○ Linker

○ Operating system

55 of 100
130 PU_2015_370
What is the postfix form of the following prefix expression -A/B*C$DE

○ A-BCDE$*/-

○ ABCDE$*/-

○ ABC$ED*/-

○ A-BCDE$*/

56 of 100
131 PU_2015_370
Requirements can be refined using:-

○ the spiral model

○ The waterfall model

○ the evolutionary model

○ prototyping model

57 of 100
152 PU_2015_370
Which of these is not an activity done in Pass-2 of multi-pass assembler?

○ Assemble the instructions (translating operation codes and looking up addresses).

○ Write the object program and assembler listing.

○ Perform the processing of the assembler directives not done during pass-1.

○ Assign addresses to all the labels.

58 of 100
108 PU_2015_370
Ping sweep is a part of:-

○ Nmap

○ Route

○ Traceroute

○ Ipconfig

59 of 100
133 PU_2015_370
Which is not a size metric?

○ Function count

○ LOC

○ Program length

○ Cyclomatic Complexity

60 of 100
207 PU_2015_370
In LISP, the addition 3 + 2 is entered as:-

○ 3 + 2

○ 3 add 2

○ (+ 3 2)

○ 3 + 2=

61 of 100
236 PU_2015_370
RIA stands for:-

○ Rapid Infrastructure Access

○ Rapid Information Application

○ Rich Internet Application

○ Rich Information Application

62 of 100
245 PU_2015_370
CSS stands for:-

○ Cascading Simple Sheets

○ Cascading Sample Sheets

○ Cascading Separate Sheets

○ Cascading Style Sheets

63 of 100
220 PU_2015_370
When a process is created, which of the following actions occur?

○ The new process receives a resource allocation from the process that created it.

○ The child process clones the parent process identification.

○ A process descriptor is allocated for the process.

○ The new process loads the program it intends to use.

64 of 100
225 PU_2015_370
Which of the following items is NOT usually a part of a process descriptor?

○ State

○ Grandparent process

○ Internal process name

○ Protection domain

65 of 100
259 PU_2015_370
The data transfer operation that is done with the help of program and CPU is called:-

○ Direct memory access data transfer

○ Program controlled data transfer

○ Bidirectional data transfer

○ Interrupt controlled data transfer

66 of 100
224 PU_2015_370
The process address space is ultimately defined by:-

○ Relocatable object modules

○ Absolute program

○ Link editor

○ Load module

67 of 100
234 PU_2015_370
The Linux distribution developed in India is:-

○ B-Linux

○ I-Linux

○ J-Linux

○ BOSS

68 of 100
243 PU_2015_370
Using the biological features for authentication and authorization is known as:-

○ Bio Sequence

○ Bio Soft

○ Bio Magic

○ Bio Metrics

69 of 100
229 PU_2015_370
RSA is a:-

○ Programming language

○ Encryption algorithm

○ Platform

○ Protocol

70 of 100
239 PU_2015_370
GPS stands for:-

○ Global Package System

○ Global Police System

○ Great Profile System

○ Global Positioning System

71 of 100
257 PU_2015_370
The most efficient way of multiplying a number by two is by performing:-

○ Rotate left operation

○ Rotate right operation

○ Shift right operation

○ Shift left operation

72 of 100
255 PU_2015_370
The program counter is a pointer that contains address of the next instruction to be executed but it is also called:-

○ Segment register pointer

○ Base pointer

○ Instruction pointer

○ Stack pointer

73 of 100
235 PU_2015_370
JQuery is a:-

○ MySQL framework

○ Java Framework

○ PHP framework

○ Javascript Framework

74 of 100
247 PU_2015_370

Which of the following is used for short distance communication?

○ Blue Tooth

○ Radio Waves

○ Filter waves

○ Green Tooth

227 PU_2015_370
Python is a:-

○ Protocol

○ Package manager

○ Operating system

○ Programming language

252 PU_2015_370
If all of the flip flops are triggered simultaneously by the clock input pulses and all flip flops change at same time is called:-

○ Ripple counters

○ Asynchronous counters

○ Synchronous counters

○ Shift counters

231 PU_2015_370
HTTPS is used for:-

○ Separate connections

○ Secure connections

○ Straight connections

○ Slow connections

222 PU_2015_370
To which depth does the alpha-beta pruning can be applied?

○ 10 States

○ 8 States

○ 6 States

○ Any depth

221 PU_2015_370
After a newly created process has been made ready for execution, which of the following actions occur?

○ It waits for user input

○ It voluntarily yields the CPU to other processes

○ It competes with other processes for the CPU

○ It creates a window for user interaction

241 PU_2015_370
The software which would listen to all the keystrokes made by the user is called:-

○ K-Manager

○ Shortcut Manager

○ Key Manager

○ Key logger

292 PU_2015_370
To cancel the privilege given to a user _____ is used.

○ CANCEL

○ REVOKE

○ UNPRIVILEGE

○ GRANT CANCEL

296 PU_2015_370
Which one of the following is not a Unary operator?

○ Select

○ Project

○ Cartesian Product

○ Rename

299 PU_2015_370
Which of the following is the fault based testing technique?

○ unit testing

○ beta testing

○ mutation testing

○ Stress testing

269 PU_2015_370
An n-bit microprocessor has:-

○ n-bit program counter

○ n-bit instruction register

○ n-bit data bus

○ n-bit address register

265 PU_2015_370
The logical aspects of the implementation (the logical and physical design techniques used to realize the architecture) is called:-

○ Computer Organization

○ Microprocessor

○ Computer Architecture

○ Internal architecture

261 PU_2015_370
The structure and behavior as seen by the programmer working in assembly language level.

○ Microprocessor

○ Computer Organization

○ Computer Architecture

○ Internal architecture

287 PU_2015_370
The number of tuples or rows in a relation is called the _____ of the relation.

○ Instance

○ Cardinality

○ Set

○ Strength

272 PU_2015_370
A microprogram sequencer:-

○ generates the address of next micro instruction to be executed

○ sequentially averages all microinstructions in the control memory

○ enables the efficient handling of a micro program subroutine

○ generates the control signals to execute a microinstruction

274 PU_2015_370
DBMS is _____.

○ a File System

○ an Operating System

○ a Layer on top of the File System

○ a Security System

298 PU_2015_370
A Transaction completes its execution is said to be:-

○ Interrupted

○ Rolled Back

○ Committed

○ Blocked

282 PU_2015_370
Normalization of relations is used to:-

○ Eliminate Redundancy

○ Minimize Errors

○ Improve Efficiency

○ Improve Security

294 PU_2015_370
UML Stands for:-

○ Userfriendly Modelling Language

○ Uniform Meta Language

○ Unified Modelling Language

○ Uniform Markup Language

277 PU_2015_370
The *wait time* for a process is:-

○ The amount of time a process needs to be in the running state before it is completed

○ The amount of time the process spends waiting in the ready state before its first transition to the running state

○ The amount of time between the moment a process first enters the ready state and the moment the process exits the running state for the last time

The time the process waits for all resources to be allocated to it

286 PU_2015_370
Which one of the following is in Transitive Dependency?

    A→B, B→C, C→A

    A→B, B→C, A→C

    A→B, B→C, B→C

    A→B, A→C, B→C

260 PU_2015_370
In which address mode the address of the operand is explicitly specified:-

    Direct addressing mode

    Memory addressing

    Indexed mode

    Immediate addressing mode

263 PU_2015_370
The free blocks which are all small and scattered around the memory cannot be allocated to the incoming block even though the total size of those blocks can be larger than the incoming block. The small free blocks can combined to form a large block.

    Compaction

    Relocation

    Thrashing

    Buddy system

266 PU_2015_370
The amount of time required to read a block of data from a disk into memory is composed of seek time, rotational latency, and transfer time. Rotational latency refers to:-

    the time it takes for the platter to make a full rotation

    the time taken to transfer the data

    the time it takes for the platter to rotate the correct sector under the head

    the time it takes for the read-write head to move into position over the appropriate track

291 PU_2015_370
_____ indicates whether a buffer has been modified or not.

    Overflow Bit

○ Read Bit

○ Modify Bit

○ Dirty Bit

99 of 100
279 PU_2015_370
The SQL DDL statement TRUNCATE is used to:-

○ All records from a relation

○ Remove all tables from the database

○ All candidate keys of a relation

○ All constraints from a relation

100 of 100
285 PU_2015_370
The join operations that allows only matching tuples to be kept in the result are called:-

○ Outer Join

○ Right Outer Join

○ Left Outer Join

○ Inner Join